

SECOND GRADE ENVISION MATH CURRICULUM MAP
CANYONS SCHOOL DISTRICT
2011 – 2012

Curriculum Mapping Purpose

Canyons School District's curriculum math maps are standards-based maps driven by the Common Core State Standards and implemented using Scott Foresman-Addison Wesley enVisionMATH ©2011. Student achievement is increased when both teachers and students know where they are going, why they are going there, and what is required of them to get there. To that end, curriculum maps answer these questions:

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
<i>What do students know?</i>	<i>What concepts and skills do students need to know?</i>	<i>How will students learn the standards?</i>	<i>What vocabulary is necessary for depth of understanding?</i>

Curriculum Maps are a tool for:

- **ALIGNMENT:** Provides support and coordination between concepts, skills, standards, curriculum, and assessments
- **COMMUNICATION:** Articulates expectations and learning goals for students
- **PLANNING:** Focuses instruction and targets critical information
- **COLLABORATION:** Promotes professionalism and fosters dialogue between colleagues about best practices pertaining to sequencing, unit emphasis and length, integration, and review strategies

These maps were collaboratively developed and refined by teacher committees using feedback from classroom teachers, achievement coaches, building administrators, and the office of Evidence-Based Learning. It is with much appreciation that we recognize the many educators that collaborated in the effort to provide these maps for the teachers and students of CSD. Specific individuals that have assisted in the writing and editing of this document include:

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Second Grade Overview

Operations and Algebraic Thinking (2.OA)

- Represent and solve problems involving addition and subtraction.
- Add and subtract within 20.
- Work with equal groups of objects to gain foundations for multiplication.

Number and Operations in Base Ten (2.NBT)

- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Measurement and Data (2.MD)

- Measure and estimate lengths in standard units.
- Relate addition and subtraction to length.
- Work with time and money.
- Represent and interpret data.

Geometry (2.G)

- Reason with shapes and their attributes..

Four Critical Areas

In Grade 2, instructional time should focus on four critical areas:

- extending understanding of base-ten notation;
- building fluency with addition and subtraction;
- using standard units of measure; and
- describing and analyzing shapes.

Common Core Practice Standards

Overarching habits of mind of a productive mathematical thinker

1. Make sense of problems and persevere in solving them
6. Attend to precision

Reasoning and explaining

2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others

Modeling and using tools

4. Model with mathematics
5. Use appropriate tools strategically

Seeing structure and generalizing

7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

The Common Core Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important processes and proficiencies with longstanding importance in mathematics education.

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

“The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices” (CCSS, 2010).

- Common Core State Standards Initiative, 2010: Mathematics>Introduction>Standards for Mathematical Practice @ Corestandards.org

Mathematics » Introduction » Standards for Mathematical Practice

Grade 2

General Instructions

Purpose

This map was created by 2nd grade teachers as a scope and sequence to guide and support math curriculum planning and instruction for the year. Please adjust as necessary to meet students' needs.

Topics

Topics identified as review are covered in a previous grade. After assessing your students re-teach as necessary.

Topics identified as core must be covered.

Topics identified as enrichment can be used as needed.

Cumulative Review

It is critical to provide an ongoing review of previously taught concepts and skills. EnVision's Daily Spiral Review works great!

Assessment

Topic assessments will be digitally available on SuccessNet CFA accounts. Topic assessment will also be available in PDF form on the District web Math page and Math teacher wiki page.

Pre-Assessments can be a topic assessment, CFA, or of your own design.

Common Core Lessons (CC)

These lessons are part of the common core but not currently presented in enVision math. Each team will receive a paper copy of these lessons. They will also be available digitally on SuccessNet Teacher and CFA accounts.

Common Formative Assessment (CFA)

CFA's are an informational assessment for you as a teacher. CFA's are one form of assessment, and the data should be used to help guide and inform your instruction. *For example:* Which problem(s) did all students get correct? Which problem(s) did a lot of students miss? What concepts need to be re-taught?

There is a period of time (from a few days to 2 weeks) between the end of instruction and the deadline for completion of CFA's.

CFA #1 by November 11 covers Topics 1, 2, 3, 4

CFA #2 by January 31 covers Topics 5, 6, 7, 8

CFA #3 by March 30 covers Topics 9, 10, 11, 12, 13,

CFA #4 by May 18 covers Topics 15, 16, 17

MATH Year-at-a-Glance 2011 - 2012

2nd Grade

Month	MATH CONCEPTS	TOPICS from EnVision	CFA and CBM ASSESSMENT DATES
August & September Days: 28	Understanding Addition and Subtraction Addition Strategies Subtraction Strategies	Topic 1 Topic 2 Topic 3	M-CBM (M-COMP) Sept. 5-13
October Days: 17	Place Value: Numbers to 100 1. Models for tens and ones 2. Comparing and ordering numbers 3. Number patterns on hundred chart	Topic 4	
November & December Days: 28	Counting Money Mental Addition Mental Subtraction 1. Dollar bill, quarter, dime, nickel, penny 2. Counting collections of coins 3. Adding and subtracting tens and ones 4. Adding and subtracting on the hundreds board	Topic 5 Topic 6 Topic 7	CFA #1 November 11 (Topics 1-4)
January Days: 20	Adding Two-Digit Numbers Subtracting Two-Digit Numbers 1. Regrouping tens and ones 2. Models to add and subtract 3. Using number lines to add and subtract	Topic 8 Topic 9	CFA #2 January 31 (Topics 5-8) M-CBM (M-COMP) Jan. 9 -27
February Days: 20	Using Addition and Subtraction Geometry Fractions 1. Adding and subtracting money 2. Estimating sums and differences 3. Vocabulary - flat surfaces, vertices, edges, plane and solid figures 4. Whole and equal parts 5. Unit fractions and regions	Topic 10 Topic 11 Topic 12	

MATH Year-at-a-Glance 2011 - 2012

2nd Grade

Month	MATH CONCEPTS	TOPICS from EnVision	CFA and CBM ASSESSMENT DATES
March Days: 18	Measurement Time 1. Inches, feet, yards and centimeters and meters 2. Lengths 3. Telling time to 5 minutes 4. Before and after the hour	Topic 13 Topic 15	CFA #3 March 30 (Topics 9-13)
April Days: 16	Graphs Numbers and Patterns to 1,000 1. Organizing data - pictographs and bar graphs 2. Working within 1000 to skip count, compare numbers, look for patterns	Topic 16 Topic 17	
May & June Days: 24	Three-Digit Addition and Subtraction Multiplication Concepts 1. Mental math, estimating sums and differences 2. Models for addition and subtraction 3. Adding and subtracting 3-digit numbers	Topic 18 Topic 19	CFA #4 May 18 (Topics 15-17) M-CBM (M-COMP) May 7 th -25 th

AUGUST/SEPTEMBER (28 days)

TOPIC 1 – UNDERSTANDING ADDITION AND SUBTRACTION

TOPIC 2 – ADDITION STRATEGIES

TOPIC 3 – SUBTRACTION STRATEGIES

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES																						
ASSESS & REVIEW			This is the time for establishing routines, reviewing math concepts from first grade, and assessing students’ needs.																						
CORE	<p>Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction.</p> <p>2.OA.1. Use addition and subtraction within 100 to solve one-and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p>	<p>Topic 1 1-0 Topic Opener and Interactive Math Story</p>	<p>*Topic 1 introduces the part- part-whole model. This model will be referred to frequently throughout future topics. Please see Table 1- <i>Common addition and subtraction situations</i> from the Common Core.</p> <p>*It is recommended that money, time, odd/even, expanded form, math symbols, graphs, and place value be addressed daily.</p> <p>Vocabulary:</p> <table><tr><td>part</td><td>plus</td></tr><tr><td>sum</td><td>add</td></tr><tr><td>addition sentence</td><td>equals</td></tr><tr><td>whole</td><td>join</td></tr><tr><td>difference</td><td>minus</td></tr><tr><td>subtraction sentence</td><td></td></tr><tr><td>subtract</td><td>separate</td></tr><tr><td>more</td><td>fewer</td></tr><tr><td>related</td><td>doubles</td></tr><tr><td>near doubles</td><td>addend</td></tr><tr><td>number sentence</td><td></td></tr></table>	part	plus	sum	add	addition sentence	equals	whole	join	difference	minus	subtraction sentence		subtract	separate	more	fewer	related	doubles	near doubles	addend	number sentence	
part	plus																								
sum	add																								
addition sentence	equals																								
whole	join																								
difference	minus																								
subtraction sentence																									
subtract	separate																								
more	fewer																								
related	doubles																								
near doubles	addend																								
number sentence																									

CORE	2.OA.1	1-1 Addition: Writing Addition Number Sentences	
CORE	2.OA.1	1-2 Addition: Stories About Joining	
CORE	2.OA.1	1-3 Subtraction: Writing Subtraction Number Sentences	
CORE	2.OA.1	1-4 Subtraction: Stories About Separating	
CORE	2.OA.1	1-5 Subtraction: Stories About Comparing	
CORE	Number and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract. 2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	1-6 Subtraction: Connecting Addition and Subtraction	
CORE	2.NBT.5	1-7 Problem Solving: Using Objects	
ASSESS	M-CBM	M-COMP	SEPTEMBER 5-13
CORE	2.OA.1	Topic 2 2-0 Topic Opener and Interactive Math Story	

CORE	2.OA.1 2.OA.2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	2-1 Addition: Adding 0,1,2	
CORE	2.OA.2	2-2 Addition: Doubles	
CORE	2.OA.2	2-3 Addition: Near Doubles	
CORE	2.NBT.5 2.NBT.9. Explain why additions and subtraction strategies work, using place value and the properties of operations.	2-4 Addition: Adding in Any Order	
CORE	2.NBT.5 2.NBT.9	2-5 Addition: Adding Three Numbers	
CORE	2.OA.2	2-6 Addition: Making 10 to Add 9	
CORE	2.OA.2	2-7 Addition: Making 10 to Add 8	
CORE	2.OA.1	2-8 Problem Solving: Draw a Picture and Write a Number Sentence	
CORE		Topic 3 3-0 Topic Opener and Interactive Story	
CORE	Operations and Algebraic Thinking: Add and subtract within 20.	3-1 Subtraction: Subtracting 0,1,2	

	2.OA.2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two and one-digit numbers.		
CORE	Number and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract. 2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	3-2 Subtraction: Thinking Addition to Subtract Doubles	
CORE	2.NBT.5	3-3 Subtraction: Thinking Addition to 10 to Subtract	
CORE	2.NBT.5	3-4 Subtraction: Thinking Addition to 18 to Subtract	
CORE	2.OA.2	3-5 Subtraction: Finding the Missing Part	
CORE	2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	3-6 Problem Solving: Two-Question Problems	

OCTOBER (17 days)

TOPIC 4 – PLACE VALUE

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
CORE		Topic 4 4-0 Topic Opener and Interactive Story	Vocabulary: digits number word greater than less than equal to after before between least greatest even odd skip counting ones tens
REVIEW	Number and Operations in Base Ten: Understand place value. 2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the special cases.	4-1 Number: Models for Tens	
CORE	2.NBT.1	4-2 Number: Models for Tens and Ones	
CORE	2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	4-3 Number: Reading and Writing Numbers	
REVIEW	2.NBT.4. Compare two three-digit numbers based on meanings of the hundred, tens, and ones digits, using symbols to record the results of comparisons.	4-4 Number: Using Models to Compare Numbers	
REVIEW	2.NBT.4	4-5 Number: Using Symbols to Compare Numbers	
REVIEW	2.NBT.4	4-6 Number: Before, After, and Between	

CORE	2.NBT.1	4-7 Number: Order Numbers	
REVIEW	2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.	4-8 Patterns: Number Patterns on a Hundred Chart	
CORE	Operations and Algebraic Thinking: Work with equal groups of objects to gain foundations for multiplication. 2.OA.3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	4-9 Patterns: Even and Odd Numbers	
REVIEW	Measurement and Data: Represent and interpret data. 2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	4-10 Problem Solving: Use Data from a Chart	

NOVEMBER/DECEMBER (28 days)

TOPIC 5 – COUNTING MONEY

TOPIC 6 – MENTAL ADDITION

TOPIC 7 -- MENTAL SUBTRACTION

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
ASSESS	CFA #1	Topics 1, 2, 3, and 4	Complete by November 11
CORE		Topic 5 5-0 Topic Opener and Interactive Story	*Money was introduced as part of daily review Vocabulary: penny nickel dime quarter cents coins dollar half-dollar greatest value least value dollar coin tally mark decimal point mental math ten digit next ten
CORE	Measurement and Data: Work with time and money. 2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using symbols appropriately. <i>Example: If you have 2 dimes and 3 pennies, how many cents do you have?</i>	5-1 Money: Dime, Nickel, and Penny	
CORE	2.MD.8	5-2 Money: Quarter and Half-Dollar	*Half Dollar is an extension
CORE	2.MD.8	5-3: Money: Counting Collections of Coins	
CORE	2.MD.8	5-4: Money: Ways to Show the Same Amount	
CORE	2.MD.8	5-5: Money: One Dollar	
CORE	2.MD.8	5-6: Problem Solving: Make an Organized List	

CORE		Topic 6 6-0 Topic Opener and Interactive Math Story	
CORE	Numbers and Operations in Base Ten: Use Place Value Understanding and Properties of Operations to Add and Subtract 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction	6-1 Addition: Adding Tens	
CORE	2.NBT.5	6-2 Addition: Adding Ones	
CORE	2.NBT.5	6-3 Addition: Adding Tens and Ones	
CORE	2.NBT.7 Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	6-4 Addition: Adding on a Hundred Chart	
CORE	2.NBT.5, 2NBT.9 Numbers and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract. 2.NBT.8. Mentally add 10 and 100 to a given	CC-1 Adding Multiples of 10	

	number 100-900, and mentally subtract 10 or 100 from a given number 100-900.		
CORE	Operations and Algebraic Thinking: Represent and solve problems involving additions and subtractions. 2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions e.g. by using drawings and equations with a symbol for the unknown number to represent the problem.	6-5 Problem Solving: Look for a Pattern	
CORE		Topic 7 7-0 Topic Opener and Interactive Math Story	
CORE	2.NBT.5	7-1 Subtraction: Subtracting Tens	
CORE	2.OA.1	7-2 Subtraction: Finding Parts of 100	
CORE	2.NBT.5, 2.NBT.8, 2.NBT.9	CC-2 Subtracting Multiples of 10	
CORE	2.NBT.7	7-3 Subtraction: Subtracting on a Hundred Chart	
CORE	2.NBT.5	7-4 Subtraction: Adding On to Subtract	
CORE	2.OA.1	7-5 Problem Solving: Missing or Extra Information	

JANUARY (20 days)

TOPIC 8 – ADDING 2-DIGIT NUMBERS

TOPIC 9 – SUBTRACTING 2-DIGIT NUMBERS

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
ASSESS	M-CBM	M-COMP	January 9-27
CORE		Topic 8 8-0 Topic Opener and Interactive Math Story	Vocabulary: regroup
CORE	Number and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract. 2.NBT.6. Add up to four two-digit numbers using strategies based on place value and properties of operations.	8-1 Addition: Regrouping 10 Ones for 1 Ten	
CORE	2.NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	8-2 Addition: Models to Add Two and One-Digit Numbers	
CORE	2.NBT.6	8-3 Addition: Adding Two- and One-Digit Numbers	
CORE	2.NBT.7	8-4 Addition: Models to Add	

		Two-Digit Numbers	
CORE	2.NBT.6	8-5 Addition: Adding Two-Digit Numbers	
CORE	2.NBT.6, 2.NBT.9, Measurement and Data: Relate addition and subtraction to length 2.MD.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	CC-3 Adding on a Number Line	
CORE	2.NBT.6	8-6 Addition: Adding Three Numbers	
CORE	Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction. 2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	8-7 Problem Solving: Draw a Picture and Write a Number Sentence	

CORE		Topic 9 9-0 Topic Opener and Interactive Math Story	
CORE	2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	9-1 Subtraction: Regrouping 1 Ten for 10 Ones	
CORE	2.NBT.5	9-2 Subtraction: Models to Subtract Two-and One-Digit Numbers	
CORE	Number and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract. 2.NBT.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	9-3 Subtraction: Subtracting	
CORE	2.NBT.5	9-4 Subtraction: Models to Subtract Two-Digit Numbers	
CORE	2.NBT.5	9-5 Subtraction: Subtracting Two-Digit Numbers	
CORE	2.NBT.6, 2.NBT.9. 2.MD.6	CC-4 Subtracting on a number line	
CORE	2.NBT.5	9-6 Subtraction: Using Addition to Check Subtraction	

	Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction. 2.OA.1.Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	9-7 Problem Solving: Two-Question Problems	*Addition and Subtraction with regrouping will be revisited in Topic 10.
ASSESS	CFA #2	Topics 5, 6, 7, and 8	Complete by January 31

FEBRUARY (20 days)

TOPIC 10 – USING ADDITION AND SUBTRACTION

TOPIC 11 – GEOMETRY

TOPIC 12 - FRACTIONS

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
CORE		Topic 10 10-0 Topic Opener and Interactive Math Story	Vocabulary: cone cube cylinder edge face flat surface pyramid sphere rectangular prism solid figure vertex circle rectangle plane shapes square triangle polygon hexagon side parallelogram trapezoid angle pentagon equal halves fourths thirds unequal
CORE	Measurement and Data: Work with time and money. 2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	10-1 Addition: Adding money	
CORE	2.MD.8	10-2 Addition: Estimating sums	
CORE	Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction. 2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	10-3 Addition: Ways to Add	

CORE	2.MD.8	10-4 Addition: Subtracting money	
CORE	2.NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	10-5 Addition: Estimating differences	
CORE		Topic 11 11-0 Topic Opener and Interactive Math Story	
CORE	Geometry: Reason with shapes and their attributes. 2.G.1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	11-1 Flat Surfaces, Vertices, and Edges	
CORE	2.G.1.	11-2 Relating Plane Shapes to Solid Figures	*The only solid form in 2nd grade core is a cube. All other solids are extensions (beyond the core).
CORE	2.G.1	CC-5 Polygons and Angles	

CORE	2.G.1	11-3 Making New Shapes	
	2.G.3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	11-4 Cutting Shapes Apart	
	2.G.2. Partition a rectangle into rows and columns of same-size squares and count them to find the total number of them.	CC-6 Dividing Rectangles into Equal Squares	
	2.G.1.	11-8 Problem Solving. Use Reasoning	
CORE		Topic 12 12-0 Topic Opener and Interactive Math Story	
CORE	2.G.3.	12-1 Fractions: Wholes and Equal Parts	
CORE	2.G.3.	12-2 Fractions: Unit Fractions and Regions	

MARCH (18 days)

TOPIC 13 – MEASUREMENT

TOPIC 15 – TIME

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
CORE		Topic 13 13-0 Topic Opener and Interactive Math Story	Vocabulary: unit length inch height centimeter foot (feet) yard meter hour minute half hour hour hand minute hand quarter past half past quarter to
CORE	Measurement and Data: Measure and estimate lengths in standard units. 2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters.	CC-7 Inches	
CORE	2.MD.1, 2.MD.3	CC-8 Centimeters	
CORE	2.MD.1. 2.MD. 3 Measurement and Data: Represent and Interpret Data 2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.	13-4 Measurement: Inches, Feet, and Yards	

CORE	2.MD.1.	13-5 Measurement: Centimeters and Meters	
CORE	2.MD.2	CC-9 Measuring Lengths	
CORE	Measurement and Data: Relate addition and subtraction to length 2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	CC-10 Adding and Subtracting in Measurement	
CORE	Measurement and Data: Measure and estimate lengths in standard units 2.MD.4 Measure to determine how much longer one object is than another, than expressing the length difference in terms of a standard length unit.	CC-11 Comparing Lengths	
CORE	2.MD.9	CC-12 Graphing Lengths	
CORE		Topic 15 15-0 Topic Opener and Interactive Math Story	*Time was introduced as a part of daily review.
CORE	Measurement and Data: Work with time and money. 2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	15-1 Time: Telling Time to Five Minutes	

CORE	2.MD.7.	15-2 Time: Telling Time Before and After the Hour	
CORE	2.MD.7. Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction. 2.OA.1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	15-6 Time: Multiple-Step problems	
ASSESS	CFA #3	Topics 9, 10, 11, 12, and 13	Complete by March 30

APRIL (16 days)**TOPIC 16 – GRAPHS****TOPIC 17 – NUMBERS AND PATTERNS TO 1,000**

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
CORE		Topic 16 16-0 Topic Opener and Interactive Math Story	*Graphs were introduced as a part of daily review
CORE	Measurement and Data: Represent and interpret data. 2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	16-1 Graphs: Organizing Data	Vocabulary: data bar graph hundreds expanded form standard form number word symbol pictograph thousands compare order
CORE	2.MD.10.	16-2 Graphs: Pictographs	
CORE	2.MD.10.	16-3 Graphs: Bar Graphs	
CORE	2.MD.10.	16-7 Graphs: Use a Graph	
CORE		Topic 17 17-0 Topic Opener and Interactive Math Story	
CORE	Numbers and Operations in Base Ten: Use place value understanding and properties of operations to add and subtract.	17-1 Number: Building 1,000	

	2.NBT.8. Mentally add 10 and 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.		
CORE	Understand place value. 2.NBT.1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases.	17-2 Number: Counting Hundreds, Tens, and Ones	
CORE	2.NBT.1. 2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. 2.NBT.7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	17-3 Number: Reading and Writing Numbers to 1,000	
CORE	2.NBT.7.	17-4 Number: Changing Numbers by Hundreds and Tens	
CORE	2.NBT.8.	17-5 Number: Patterns with Numbers on Hundreds Chart	
CORE	2.NBT.2	CC-13 Skip counting by 5, 10, 100, to 1,000	

CORE	2.NBT.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	17-6 Number: Comparing Numbers	
CORE	2.NBT.1.	17-8 Number: Ordering Numbers	

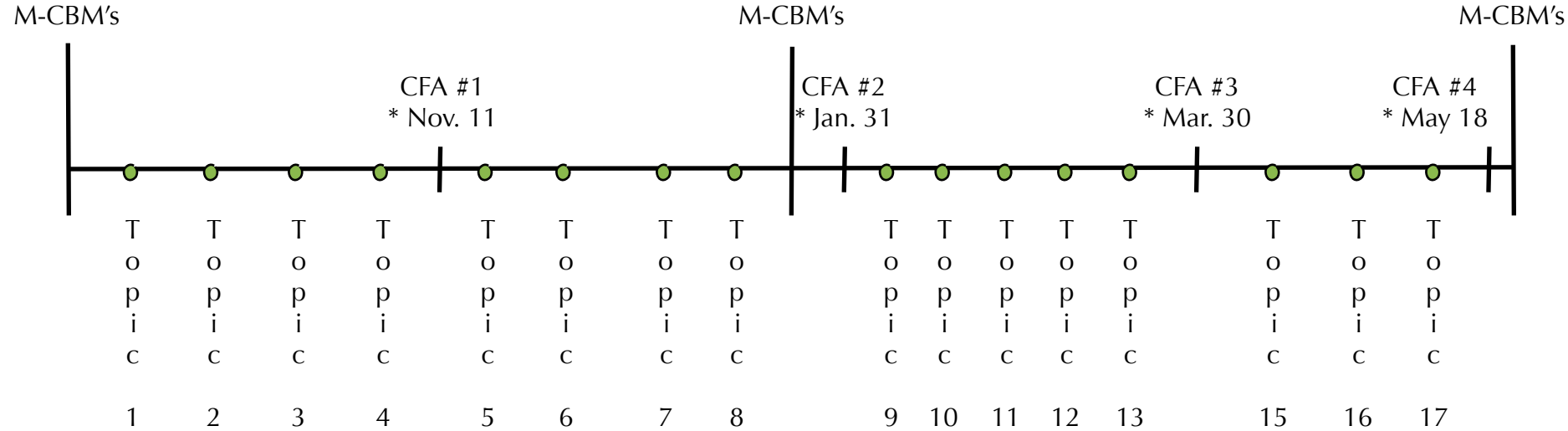
MAY/JUNE (24 days)**TOPIC 18 – THREE-DIGIT ADDITION AND SUBTRACTION****TOPIC 19 – MULTIPLICATION CONCEPTS**

REVIEW, CORE, EXTEND, ASSESS	COMMON CORE STANDARD	ENVISION LESSON	VOCABULARY & NOTES
CORE		Topic 18 18-0 Topic Opener and Interactive Math Story	Vocabulary: three-digit numbers hundreds digit array multiply product times
CORE	2.NBT.7, 2.NBT.8	CC-14 Exploring Adding Three-Digit Numbers	
CORE	2.NBT.7. 2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.	18-1 Addition: Mental Math	Page 549 G-H Interactive Math Story Games associated with each lesson introduced and made available for students' use.
CORE	2.NBT.7 2.NBT.8.	18-2 Addition: Estimating Sums	
CORE	2.NBT.7. 2 NBT.9.	18-3 Addition: Models for Adding with Three-digit Numbers	
CORE	2.NBT.7. 2 NBT.9.	18-4 Addition: Adding Three-Digit Numbers	
CORE	2. NBT. 7	CC-15 Exploring Subtracting Three-Digit Numbers	
CORE	2.NBT.7. 2 NBT.9.	18-5 Addition: Mental Math: Ways to Find Missing Parts	

CORE	2.NBT.7. 2 NBT.9.	18-6 Addition: Estimating Differences	
CORE	2.NBT.7. 2 NBT.9.	18-7 Addition: Models for Subtracting with Three-Digit Numbers	
CORE	2.NBT.7. 2 NBT.9.	18-8 Addition: Subtracting Three-Digit Numbers	
CORE	Measurement and Data: Represent and interpret data. 2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	18-9 Addition: Make a Graph	
ASSESS	CFA #4	Topics 15, 16, 17, and 18	Complete by May 18
ASSESS	M-CBM	M-COMP	May 7-25
CORE		Topic 19 19-0 Topic Opener and Interactive Math Story	
CORE	Operations and Algebraic Thinking: Work with equal groups of objects to gain foundations for multiplication 2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	19-1 Multiplication: Repeated Addition and Multiplication	
CORE	2.OA.4	19-2 Multiplication: Building Arrays	*19-3 - 19-6 can be used as an extension.

CORE	2.NBT.7. 2 NBT.9.	18-6 Addition: Estimating Differences	
CORE	2.NBT.7. 2 NBT.9.	18-7 Addition: Models for Subtracting with Three-Digit Numbers	
CORE	2.NBT.7. 2 NBT.9.	18-8 Addition: Subtracting Three-Digit Numbers	
CORE	Measurement and Data: Represent and interpret data. 2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	18-9 Addition: Make a Graph	
ASSESS	CFA #4	Topics 15, 16, 17, and 18	Complete by May 18
ASSESS	M-CBM	M-COMP	May 7-25
CORE		Topic 19 19-0 Topic Opener and Interactive Math Story	
CORE	Operations and Algebraic Thinking: Work with equal groups of objects to gain foundations for multiplication 2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	19-1 Multiplication: Repeated Addition and Multiplication	
CORE	2.OA.4	19-2 Multiplication: Building Arrays	*19-3 - 19-6 can be used as an extension.

Second Grade
Math Assessment Continuum



● = optional assessment

* Please submit quarterly CFA scores
to your school principal by this date.

2nd Grade CCSS Vocabulary Word List

Revised 6/29/11

add	equal shares
addend	equation
a.m.	estimate
analog clock	even number
angle	expanded form
array	expression
Associative Property of Addition	face
attribute	foot
bar graph	fourths
category	fraction
cent	geometric solid
centimeter	greater than
circle	half circle
classify	half hour
closed figure	halves
Commutative Property of Addition	hexagon
compare	hour
compose	hour hand
cone	inch
count back	key
count on	length
counting up	less than
cube	line
customary system	line plot
cylinder	meter
data	metric system
decompose	minute
difference	minute hand
digit	money
digital clock	nickel
dime	number
dollar	number line
doubles	numeral
edge	odd number
equal	one-fourth
equal groups	one-half

2nd Grade CCSS Vocabulary Word List
Revised 6/29/11

one hundred	sphere
one-third	square
penny	standard form
pentagon	subtract
picture graph	sum
place value	tens
p.m.	thirds
quadrilateral	3-dimensional
quarter	time
quarter of	triangle
quarter-hour	2-dimensional
rectangle	unit
regroup	vertex (vertices)
sequence	weight
side of a shape	whole numbers
sort	word form

The Core **and MORE** Instruction Checklist

The CCSS Standard: The Envision Lesson:	
EXPLICIT INSTRUCTION I do it, We do it, Y'all do it, You do it	ENGAGEMENT All Students Saying, Writing, Doing
PROACTIVE PLANNING	VOCABULARY WORDS
The following questions should be considered for each part of the lesson: <ul style="list-style-type: none"> - What are the predictable failures for this lesson? (conceptually and behaviorally) - How will you prevent these failures? - What will you do to maintain consistency? - How will you know if it is working? 	
<div> <input type="checkbox"/> cumulative review <input type="checkbox"/> higher-order thinking, ask why <input type="checkbox"/> have students visualize, draw, model <input type="checkbox"/> real-world contexts </div> <div> <input type="checkbox"/> math vocabulary <input type="checkbox"/> milk the data <input type="checkbox"/> incorporate measurement <input type="checkbox"/> number sense </div>	
ANTICIPATORY SET (5 MINUTES)	
Choose from the many options: <ul style="list-style-type: none"> <input type="checkbox"/> <i>Review What You Know</i> <input type="checkbox"/> <i>Interactive Math Stories</i> <input type="checkbox"/> <i>Math Journaling</i> <input type="checkbox"/> <i>Spiral Review</i> <input type="checkbox"/> <i>Problem of the Day</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses <input type="checkbox"/> Random call on students (No hand raising)
BUILDING A FOUNDATION (5-10 MINUTES)	

<p><i>The Language of Math: Vocabulary instruction</i></p> <ol style="list-style-type: none"> 1- How will you explicitly teach new vocabulary? 2- How will you provide multiple opportunities for vocabulary to be used in context? 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses <input type="checkbox"/> Random call on students (No hand raising)
<p>WHOLE GROUP INSTRUCTION: Concrete (10-15 MINUTES)</p>	
<p><i>Develop the Concept: Interactive Learning (Hands-on)</i></p> <ol style="list-style-type: none"> 1- What materials/manipulatives will you need? 2- Will each student have enough materials to model the problems? -If they do not, will you have them pair up or adjust the problems? 3- Where will students record their work during this phase of the lesson? 4- How will you check for understanding during this phase of the lesson? 5- Will you use the <i>Extend</i>? 6- Will you use the <i>Link to Investigations</i>? 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses <ul style="list-style-type: none"> <input type="checkbox"/> Paper <input type="checkbox"/> Math Journal <input type="checkbox"/> Individual Whiteboards <input type="checkbox"/> Student page from the topic pouch <input type="checkbox"/> Random call on students (No hand raising)
<p>SCAFFOLDED INSTRUCTION: Representational (15-20 MINUTES)</p>	
<p><i>Develop the Concept: Visual</i></p> <p>The <i>Visual Learning Bridge</i>, at the top of each lesson, is critical to connecting the Concrete to the Representational and then to the Abstract. Look for <i>Prevent Misconceptions</i>.</p> <p>Choose one option:</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Visual Learning Animation</i> (on-line or CD) <input type="checkbox"/> Overhead Transparency <input type="checkbox"/> <i>Visual Learning Bridge</i> in Student textbook <input type="checkbox"/> Document camera <ol style="list-style-type: none"> 1- Check for understanding during the <i>Guided Practice</i>. 2- Where will students record their work? 3- If most students are struggling during this phase of the lesson, what will you do? 	<ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses <input type="checkbox"/> Random call on students (No hand raising)

<ul style="list-style-type: none"> <input type="checkbox"/> Reteach explicitly with various problems from the <i>Guided or Independent Practice</i> or the <i>Reteaching</i> sets at the back of the <i>Topic Guide</i>. <input type="checkbox"/> Use lessons from <i>Meeting Individual Needs</i>. <input type="checkbox"/> Use the <i>Differentiated Instruction: Intervention</i> lesson. <p>4- Will some of the problems from the <i>Problem Solving</i> be included in your <i>Guided Practice</i> or <i>Independent Practice</i>?</p>	
INDEPENDENT PRACTICE: ABSTRACT	
<p><i>Independent Practice and Problem Solving</i></p> <ol style="list-style-type: none"> 1- Which problems will you assign? 2- Where will students record their work? 3- Will you collect, grade and record the independent practice? 4- How will you check for understanding? 5- If students do not finish the problems assigned for independent practice, will these problems be homework? 	<p>(15-20 MINUTES)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Choral Responses <input type="checkbox"/> Partner Responses <input type="checkbox"/> Written Responses <input type="checkbox"/> Random call on students (No hand raising)
FORMATIVE ASSESSMENT	
<p>(5-10 MINUTES)</p> <p>Concept Understanding</p> <ul style="list-style-type: none"> <input type="checkbox"/> PLC/Grade-Level common formative assessment <input type="checkbox"/> <i>Quick Check</i> (in <i>Teacher Resource Masters</i>) <input type="checkbox"/> <i>Writing to Explain</i> <input type="checkbox"/> <i>Mind Game Quiz Show</i> <input type="checkbox"/> Student buzzers or AverPens <p>Formative Assessment Tools</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Topic tests</i> (online or in text) <input type="checkbox"/> <i>Item Analysis for Diagnosis and Intervention</i> <input type="checkbox"/> <i>Free-Response Test</i> <input type="checkbox"/> <i>Performance Assessment</i> <input type="checkbox"/> CBM-Math <input type="checkbox"/> PLC/Grade-Level common formative assessment <input type="checkbox"/> Other assessment tool <p>End of each Quarter:</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>District Common Formative Assessment (CFA)</i> 	
CENTER ACTIVITIES	
(15 - 45 MINUTES)	

*This part of the lesson is beneficial for providing engaging activities while the teacher works with small groups of students who need supplemental instruction.

Choose from the many options:

- ☐ *Differentiated Instruction*
- ☐ *Math Project*
- ☐ *Meeting Individual Needs*
- ☐ *Teacher-led interventions*
- ☐ *Leveled Homework*
- ☐ *Online games from Envision Digital Premium*

- 1- Will you do these activities and if so, when?
- 2- When will you give directions on how to play?
- 3- What materials will be needed for the activities?
- 4- Will you work with the Intervention group?
- 5- How will you determine which activities will be assigned to each group of students?

HOMEWORK

Choose from the many options:

- ☐ *Finish Independent Practice and/or Problem Solving assignment*
- ☐ *Spiral Review*
- ☐ *Quick Check*
- ☐ *Leveled Homework*
- ☐ *Online games from Envision Digital Premium*
- ☐ *Online tutorials from Envision Digital Premium*

- 1- Will you collect and grade homework?
- 2- Will you discuss homework? Is so, when?

2nd GRADE MATH COMMON CORE WITH ENVISION CORRELATION

Mathematics | Grade 2

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

(1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

(2) Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

(3) Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iteration they need to cover a given length.

(4) Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade 2 Overview

Operations and Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Add and subtract within 20.

- Work with equal groups of objects to gain foundations for multiplication.

Number and Operations in Base Ten

- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Measurement and Data

- Measure and estimate lengths in standard units.
- Relate addition and subtraction to length.
- Work with time and money.
- Represent and interpret data.

Geometry

- Reason with shapes and their attributes.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking	2.OA
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Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
(Lessons: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 3.1, 3.2, 3.3, 3.4, 3.6, 6.1, 6.2, 6.3, 6.4, 7.3, 7.4, 7.5, 8.1, 8.7, 9.7, 10.7, & 15.6)

Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
(Lessons: 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, & 3.4)

Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

(Lessons: 4.9)

4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

(Lessons: 19.1, 19.2, 19.3, 19.5, & 19.6)

Number and Operations in Base Ten 2.NBT

Understand place value.

1. Understand that the three digits of a three digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:

(Lessons: 17.1, 17.2, & 17.3)

- a. 100 can be thought of as a bundle of ten tens — called a “hundred.”

(Lessons: 17.1 & 17.3)

- b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

(Lessons: 17.1, 17.2, & 17.3)

2. Count within 1000; skip-count by 5s, 10s, and 100s.

(Lessons: 17.1, 17.5, & cc13)

3. Read and write numbers to 1000 using base ten numerals, number names, and expanded form.

(Lessons: 4.2, 4.3, 17.2, & 17.3)

4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

(Lessons: 4.7, 17.6, 17.8, & 17.7)

Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

(Lessons: 1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, 3.5, 5.6, 6.1, 6.2, 6.3, 6.4, cc1, 6.5, 7.1, 7.2, cc2, 7.3, 7.4, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 10.1, 10.3, 10.4, & 10.6)

6. Add up to four two-digit numbers using strategies based on place value and properties of operations.

(Lessons: 8.1, 8.2, 8.3, 8.4, 8.5, cc3, 8.6, & cc4)

7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and

tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

(Lessons: cc14, 18.1, 18.2, 18.3, 18.4, cc15, 18.5, 18.6, 18.7, & 18.8)

8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

(Lessons: cc1, cc2, 10.2, 10.5, 17.4, 17.5, cc14, 18.1, & 18.5)

9. Explain why addition and subtraction strategies work, using place value and the properties of operations.

(Lessons: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, 3.5, 6.1, 6.2, 6.3, 6.4, cc1, 7.1, 7.2, cc2, 7.3, 7.4, 8.1, 8.2, 8.3, 8.4, 8.5, cc3, 8.6, 9.1, 9.2, 9.3, 9.4, 9.5, cc4, 9.6, 10.1, 10.3, 10.4, 10.6, 18.3, 18.4, 18.5, 18.7, & 18.8)

Measurement and Data	2.MD
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Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
(Lessons: 13.2, cc7, cc8, 13.4, & 13.5)
2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
(Lessons: 13.3 & cc9)
3. Estimate lengths using units of inches, feet, centimeters, and meters.
(Lessons: cc7, cc8, 13.4, & 13.5)
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
(Lessons: cc11)

Relate addition and subtraction to length.

5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
(Lessons: cc10)
6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.
(Lessons: cc3 & cc4)

Work with time and money.

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
(Lessons: 15.1 & 15.2)
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*
(Lessons: 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, & 10.7)

Represent and interpret data.

9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

(Lessons: 13.4, 13.5, & cc12)

10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.

(Lessons: 16.1, 16.2, 16.3, 16.7, 18.9)

Geometry	2.G
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Reason with shapes and their attributes.

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.⁵ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

(Lessons: 11.1, 11.2, cc5, 11.3, 11.4, & 11.8)

2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

(Lessons: cc6, 13.7, 13.8, & 19.5)

3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not

(Lessons: 12.1 & 12.2)